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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/846,950 | 05/01/2001 | Se Jong Oh | A34175 | 4659 |
| 21003 | 7590 | 07/26/2005 | EXAMINER | |
| BAKER & BOTTS 30 ROCKEFELLER PLAZA NEW YORK, NY 10112 | | | MEW, KEVIN D | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2664 | |

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/846,950

Applicant(s)

OH; SE JONG

Examiner

Kevin Mew

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Final Action

Response to Amendment

1. Applicant's Arguments/Remarks filed on 3/31/2005 regarding claims 1-3 have been fully considered and claims 1-6 are currently pending. Claims 4-6 have been newly added by the Applicant.
2. Acknowledgement is made of the amended abstract regarding the objection to the specification cited in the previous Office Action. The correction is acceptable and the objection to the specification has been withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art, Cooper et al. (USP 6,055,430) in view of Kapanen (USP 6,792,274), and in further view of Ahn et al. (WO 99/53631) and Longoni et al. (US Publication 2001/0018345).

Regarding claim 1, Cooper discloses a method for transmitting wireless packet data in a mobile communication system, which comprises a base station (central terminal) having a call processor (central terminal comprises call manager, see col. 1, line 62) therewithin, and terminals

(wireless telecommunications system includes one or more service areas, each of which comprises a central terminal and subscriber terminals, see col. 5, lines 55-60 and Fig. 1; note that central terminal corresponds to base station), the method comprising the steps of:

initializing the call processor within the base station (call manager of the central terminal generates a call instance to store attributes provided by the call, col. 3 lines 66-67 and col. 4, lines 1-6), and then receiving a setup message from the terminals (central terminal receiving a call from the subscriber terminals, see col. 1, lines 62-64) and simultaneously;

generating a packet data call instance in response to the received time table assignment request message (call manager generates a call instance after receiving a call from subscriber terminals, see col. 1, lines 62-67);

Cooper does not explicitly disclose receiving a time table assignment request message from the control station, updating a time table, and transmitting a time table assignment completion message to the control station. However, Kapanen discloses a base station controller would detect the time slot allocation situation of the base transceiver stations and would indicate to the base transceiver station the identification of a free time slot to be allocated to the base transceiver station. Kapanen further discloses that the base transceiver station would inform the base station controller the connection was made so that in response to that information, the base station controller updates the allocation table such that the time slot is marked allocated to the base transceiver station in question (see col. 5, lines 15-52). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the wireless communication method of Cooper with the time slot allocation steps of Kapanen during call setup request by the subscriber terminals such that the central terminal of Cooper will

receive time slot assignment request from the base station controller such as the base station controller taught by Kapanen. The motivation to do so is to provide time slot allocation for the call setup request initiated by the subscriber terminals so that the central terminal can transmit the call in frames that are made up of time slots.

Cooper and Kapanen do not explicitly disclose generating a radio bursting protocol (RBP) instance. However, Ahn discloses a mobile communication system in which short burst data is transmitted using an Radio Burst Protocol (see page 1, lines 14 and page 2, lines 3-7). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the wireless communication method of Cooper and Kapanen with the RBP protocol of Ahn such that the RBP protocol is used for passing control and data information between the central terminal and the subscriber terminals. The motivation to do so is to provide a lightweight automatic request (ARQ) protocol for transmitting data packets in a short burst period that improves the reliability of message delivery over shared channels.

Cooper and Kapanen do not explicitly show transmitting a time slot information message through a paging channel to the terminals, wherein the time slot information message includes time slot information indicating when each respective terminal should read a common data channel. However, Ahn discloses sending a response message that includes either an acknowledgement signal ACK or a not acknowledgement NACK signal from a base station to the mobile station on a paging channel (see page 6, lines 11-27) and have the mobile station retransmit the same SDB frame on the reverse common channel (see page 7, lines 10-14). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the wireless communication method of Cooper and Kapanen with Ahn for

transmitting messages from base station to mobile station via the paging channel. The motivation to do so is to provide a method of a RBP transmission scheme in which an SDB message is continuously transmitted on a reverse common channel/access channel until an acknowledgement response signal is received at the mobile station from the base station.

Cooper, Kapanen, Ahn do not explicitly disclose transmitting packet data according to the respective RBP instance for each terminal from the base station to the terminals via the common data channel. However, Longoni et al. (US 2001/0018345) discloses transmitting packet data from a base station to each respective mobile station via a common channel FACH in the downlink direction (see entire paragraph 0038). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the wireless communication method of Cooper, Kapanen, Ahn with the cellular communication update method of Longoni such that data packets will be transmitted from a base station to a mobile station according to the RBP's SDB frame received at the base station from the mobile station. The motivation to do so is to allow use a common FACH channel to transport information identifying the mobile station for which a given packet is intended.

Regarding claim 2, Cooper, Kapanen and Ahn discloses all the aspects of the claimed invention set forth in the rejection of claim 1 above, except fails to explicitly show the method of claim 1, wherein when transmitting the information message from the base station to the terminals, a time slot available to a common data channel is assigned to each channel by transmitting the common data channel in a time division manner. However, Cooper further discloses that a call connection for a subscriber terminal is placed on a particular time slot (see

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col. 1, lines 40-46). Ahn also discloses transmitting short data burst frames from base station to mobile station on a common data channel (see Fig. 4B). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the wireless communication method of Cooper and Kapanen with Ahn for transmitting messages in a common data channel where each available time slot of the common data channel is allocated for each call connection. The motivation to do so is to save network resources when using a common data channel for traffic from all call connections rather than using a dedicated channel for each individual call connection.

Regarding claim 3, Cooper discloses the method of claim 1, further comprising the step of transmitting, in the call processor within the base station, a response message to the setup message received from the terminals. However, Ahn discloses sending a response message from a base station to a mobile station after receiving a paging channel request message from the mobile station (see page 1, lines 19-21). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the wireless communication method of Cooper and Kapanen with Ahn for a base station to send a response message to the mobile station that made a channel request message to the base station. The motivation to do so is to provide an acknowledgment to the mobile station to indicate that a connection has been established between the mobile station and the base station network and time slots have been allocated for the mobile station to transmit data traffic.

Regarding claim 4, Ahn discloses at the call processor prior to transmitting the time slot information message, assigning time slots (setting timer T_RBP) during which the terminals are to read the common data channel (T_RBP is the time during which the mobile stations will keep transmitting SDB frame continuously on a reverse common channel until a positive acknowledgement is received from the base station, see page 6, lines 11-19); and recording the time slot information in the packet data call instance (recording timer T_RBP for the RBP' SDB frame instance, see page 6, line 23-24 and Figs. 1A and 1B).

Regarding claim 5, Ahn discloses the method of claim 3, wherein each terminal reads the common data channel during its assigned one or more time slots (see page 6, lines 11-19).

Regarding claim 6, Cooper discloses the method of claim 1, wherein the packet data call instance comprises information regarding the terminals performing packet data communications with the base station (call manager of the central terminal generates a call instance to store attributes provided by the call, col. 3 lines 66-67 and col. 4, lines 1-6).

Response to Arguments

4. Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Mew whose telephone number is 703-305-5300. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 703-305-4366. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Wellington Chin', with a long horizontal line extending to the right.

WELLINGTON CHIN
SENIOR PATENT EXAMINER